

REMARKS

Applicants request reconsideration of the subject application in view of the foregoing amendments and the following remarks.

The foregoing amendments are believed to place the application into condition for allowance, or at least in better form for appeal. The amendments were not earlier presented because Applicants earnestly believed the claims to be allowable in their earlier form. Accordingly, Applicants request entry and consideration of the amendments.

Claims 1-20 are pending in the application, with claims 1, 11, 14 and 17 being independent. Claims 1, 11, 14, 17 and 20 have been amended herein to further clarify that these claims define the invention in a manner that distinguishes over the prior art. Support for the amendments can be found at, for example, page 2, line 33 - page 3, line 15, and Figures 1 and 2 of the original specification.

Claim 20 stands rejected under 35 USC §112, second paragraph as allegedly being indefinite for lack of antecedent basis. Applicants submit that the foregoing amendment to claim 20 addresses the antecedence, and request withdrawal of the rejection.

Claims 1-12 and 14-20 stand rejected under 35 USC §102(b) as being anticipated by US Patent No. 5,833,031 (Liebetrau et al.). This rejection is respectfully traversed.

In one aspect of the invention, Claim 1 recites an elevator system that includes an elevator assembly disposed within a hoistway and suspended by elevator ropes having ends suspended with respect to a pair of rigid structures. In another aspect, Claim 11 relates to method of countering load reaction forces in a pair of rigid structures caused by a vertical load attributable to an elevator assembly suspended from said rigid structures. In another aspect, Claim 14 relates to an elevator system including an elevator assembly disposed within a hoistway and a pair of load bearing structures and from which the elevator assembly is suspended by elevator ropes. In another aspect, Claim 17 relates to an elevator system including an elevator assembly disposed within a hoistway and a pair

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of load bearing structures and from which the elevator assembly is suspended. In each of these aspects of the invention, the rigid or load bearing structures are affixed to opposing walls of the hoistway, and a compression member is positioned between the rigid or load bearing structures.

Liebetrau et al., on the other hand, relates to an appendable elevator that can be attached to the outside wall of a building. Vertical guide modules 10 are spanned at their top and bottom ends, respectively, by shaft head module 13 and foundation module 12, forming a stiff and self-supporting unit. The guide modules 10 are attached to the building by fastening modules 11. The Office Action equates the shaft head module 13 with the claimed compression member. The Office Action also cites to column 1, lines 16-18 of Liebetrau et al. for the proposition that the system disclosed therein is disposed within a hoistway.

However, Applicants do not believe that the cited passage can be read to disclose that the system of Liebetrau et al. is disposed within a hoistway. Rather, the statement merely indicates that *installation* of the disclosed system is *similar to* that for an elevator in a shaft.

In any case, the system of Liebetrau et al. clearly does not include rigid or load bearing structures that are affixed to opposing walls of a hoistway, nor does it disclose a compression member that is positioned between such rigid or load bearing structures. Therefore, claims 1, 11, 14 and 17 patentably define the invention over Liebetrau et al., and Applicants request withdrawal of the rejection under §102.

Claims 1-20 stand rejected under 35 USC §103(a) as being unpatentable over US Patent No. 5,899,300 (Miller et al.) in view of US Patent No. 3,395,777 (Rodosta). This rejection is respectfully traversed.

Miller et al. relates to mounting a traction machine on a vertical beam 52 disposed in a hoistway. One dead-end hitch 38 is affixed to another such beam 64. According to Miller et al., loads from the machine (and associated traction sheave) and ropes are transmitted by the beams 52, 64 to the pit of the hoistway.

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Rodosta relates to a free-standing automobile lift consisting of four vertical corner posts, which are "rigidly-fixed" to a floor, and a vehicle-supporting frame slidably connected to the posts. According to the Office Action, transverse tie rods 18-20, which connect the top ends of the corner posts, are equated to the claimed compression member, and it is alleged that it would have been obvious to have provided such a compression member between the "rigid structures" of Miller et al. in order to prevent the rigid structure from bending due to vertical loading.

However, Miller et al. discloses that the beams 52, 64 are structural stress, I-shaped structures that are readily available, relatively inexpensive and capable of supporting the loads (column 3, lines 33-44). One purpose of functionally separating the mounting beams from the guide rails is to permit each to be optimized for their respective functions (column 1, lines 59-61). Thus, in contrast to the free-standing structure of Rodosta in which the corner posts are affixed to the floor, there is no reason to believe a compression member would be needed in the arrangement of Miller et al., to prevent bending due to vertical loading or for any other reason. Therefore, there would have been no objective motivation to combine the cited documents as asserted.

Further, even if combined, the documents fail to disclose several salient features of the claimed invention. In this regard, the affixation of the other dead-end hitch 44 is not discussed in Miller et al. Thus, the ends of the elevator ropes are not suspended with respect to the features that are equated with the claimed pair of rigid structures, in the manner recited in claim 1. Regarding claim 11, there is no disclosure in either cited document to suggest that, if combined, the compressive member would be provided between points on said rigid structures from which said elevator assembly is suspended.

Therefore, independent claims 1, 11, 14 and 17 each patentably defines the invention over the cited art, and Applicants request withdrawal of the rejection under §103.

The dependent claims recite features in addition to those set forth in the various independent claims, and are submitted to be allowable for the foregoing reasons and in their own right. Further independent consideration of the dependent claims is requested.


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Applicants submit the subject application to be in condition for allowance, and request a notice thereof.

Please charge any additional fees or credit overpayment to Deposit Account No. 15-0750, Order No. OT-4538.

Respectfully Submitted,


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Claim Sheet

Version Showing
Claim Amendments

1. (Twice Amended) An elevator system comprising:
an elevator assembly disposed within a hoistway and suspended by elevator ropes having ends suspended with respect to a pair of rigid structures affixed to opposing walls of the hoistway; and
a compression member positioned between said rigid structures in such a manner so as to counter resultant forces applied to said rigid structures due to a vertical load.
11. (Amended) A method of countering load reaction forces in a pair of rigid structures affixed to opposing walls of a hoistway caused by a vertical load attributable to an elevator assembly suspended from said rigid structures, said method comprising
providing a compression member; and
positioning said compression member between points on said rigid structures from which said elevator assembly is suspended.
14. (Amended) An elevator system comprising:
an elevator assembly disposed within a hoistway;
a pair of load bearing structures affixed to opposing walls within the hoistway and from which the elevator assembly is suspended by elevator ropes; and
a compression member positioned between said load bearing structures in such a manner so as to counter non-vertical components of forces applied to said load bearing structures due to suspension of the elevator assembly.
17. (Amended) An elevator system comprising:
an elevator assembly disposed within a hoistway;
a pair of load bearing structures affixed to opposing walls within the hoistway and from which the elevator assembly is suspended; and
a compression member positioned between said load bearing structures in such a manner so as to counter non-vertical components of forces applied to said load bearing structures due to suspension of the elevator assembly.

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20. (Amended) The elevator system according to claim 18-17, wherein
the elevator assembly comprises an elevator car and elevator ropes by which the
car is suspended, and
ends of the elevator ropes are suspended by the mounting brackets.

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Attachment to Amd Aft Final Rej.